Welcome address of Dr. Horst Mehrländer, State Secretary, Ministry of Economic Affairs of the state of Baden-Württemberg, on the occasion of the meeting of the Implementation and Liaison Committee (ILC), of the International Partnership of the Hydrogen Economy (IPHE), 02.03.2004, Reisensburg Castle.

## Es gilt das gesprochene Wort! Check against delivery!

Dr. Neef, Prof. Sigfússon, Ladies and Gentlemen,

it is my great pleasure to be here at your conference and I welcome you on behalf of the state government of Baden-Württemberg, especially of our Ministerpräsident Erwin Teufel, of our Minister of economic affairs Dr. Döring and of course personally.

Your choice of Reisensburg Castle as conference venue exemplarily stands for a successful link between tradition and modern age.

The romanesque tower and the castle built in the 17<sup>th</sup> century stand for tradition whereas the newly built wing of the castle can be regarded as contribution to modern age. And your conference envisioning a hydrogen economy is representing the future.

We all do not know in how distant of future this is going to happen. Nevertheless, I dare to say that we are currently witnessing the first cautious steps.

But, as always, we will know for sure only when looking back. As of today, I presume that the hydrogen economy will take considerable time to become reality.

However, let me link the subject of a hydrogen economy directly to fuel cell technology.

Therefore, Ladies and Gentlemen, allow me to introduce you briefly to the activities of the state of Baden-Württemberg with regard to fuel cell technology.

Baden-Württemberg is the home of different centers of excellence in the field of fuel cells. The commitment to this new and exciting technology starts from basic research at the universities of Ulm, Stuttgart, and Karlsruhe. Baden-Württemberg is also the home of the Solar and Hydrogen Research Center (ZSW) as well as the institutes of the Fraunhofer society ISE and ICT, and the institutes of the German Aerospace Research Center (DLR). Furthermore, key industrial players in fuel cell technology are located in our state.

Ladies and Gentlemen, Introduction of a new technology into the market also requires education and training. Therefore, I am proud to announce that almost exactly seven months ago, the ground for establishing a fuel education and training center has been broken in Ulm. And I have had the honour, being one member of this ceremony.

This ceremony not only stood at the beginning of the construction work for the future home of this facility. It is the first step to practical use of fuel cell technology.

I am particularly happy about this new building since new buildings cannot be taken for granted in times of permanent budget cuts and concentration on essentials.

About 3,2 million € granted by the state foundation of Baden Württemberg will be invested in this new institute. In addition, 1,5 million € from the federal government will support the project.

The facility shall initiate applications as well as support and coordination service for customers. Furthermore, the fuel cell education and training center shall form the basis for qualification and training at all levels of skills. The activities shall not only be initiated but actively sustained.

Ladies and Gentlemen, Fuel cells are omnipresent these days. There is a considerable public awareness.

It is necessary to use this public interest to win people for the doubtlessly positive perspectives of fuel cell technology.

We need the fuel cell education and training center at times when many people are talking about fuel cells. However, only few have actually seen fuel cells in operation and know about their working principles.

To provide abstract existence of fuel cells with a specific subject is the main task of the education and training center.

New technologies need to be transparent to and understandable for the public. It is necessary to transfer fuel cells from laboratory samples and prototypes to the work shop floor or better to the site of end users.

Ladies and Gentlemen, the ministry of economic affairs Baden-Württemberg supports this new and promising technological options in a variety of ways since we are convinced that fuel cell technology will be a key element in future energy systems.

Some people even say that fuel cells have the same meaning for energy technology as semiconductor technology once had for telecommunications.

This might sound somewhat exaggerated, but at the time of the invention of the transistor the whole significance of this development was quite certainly not obvious.

And now, regarding fuel cell technology, we cannot predict once again the whole spectrum of future options and consequences.

Minimum pollution and high energy efficiency are ideally suited to solve two of the most prominent problems of the energy industry. As there are:

- Protection of environment and climate as well as
- Careful use of natural resources

Both are important criteria in the discussion of a sustainable energy supply.

Ladies and Gentlemen, Baden-Württemberg has been intensely supporting research and development of renewable energies for many years.

Many excellent research organizations are based in our state.

Compared to other states, Baden-Württemberg still takes a lead concerning the budget for research and development.

Approximately 100 million € have been spent in the period from 1991 to 2002 alone.

In Germany and Europe, we do need cutting edge research and a climate of innovation in order to compete on international markets and national economies.

Jobs in industrial sectors with high value added productivity are also secure jobs in the future.

Ladies and Gentlemen, I see fuel cells and renewable energies not only as essential pacemakers towards a sustainable development, but also as a very important future market.

In the future, fuel cells will enter numerous fields of application which today still rely on other technologies.

The vehicle industry is a good example for, even if the time line for fuel cell propelled vehicles has been delayed.

In the field of residential energy supply, one can be sure that in the foreseeable future fuel cells will supplement traditional boilers.

One of the first installations of a fuel cell in combined heat and power generation has already been installed at Ulm university of applied sciences. The installation having an electric power of 5 kW has been supported by a grant from the technology demonstration program of the ministry of economic affairs Baden-Württemberg. And I have had the honour, to fire the starting pistol for this installation.

The ministry intends to actively support the further development and practical applications of fuel cell technology.

Whoever intends to shape the future must dare to take the first steps. We did this.

A solid demonstration of the practical use of hydrogen energy is currently taking place within the city of Stuttgart. Fuel cells are powering a bus line on regular service. Every passenger can experience the possibilities of fuel cell technology.

Explicit applications which can be understood by everybody are important catalysts for the further implementation of hydrogen and fuel cell technology.

New technologies require practical testing to allow further development. At the same time practical applications require products to touch.

The present attention given to fuel cells by the general public and the media is helpful on the one hand since it guarantees awareness. However, on the other hand raising too high expectations in the general public could be counterproductive.

Good judgement is required to advance things in a systematic way. Unlimited euphoria during the implementation of new technologies could eventually be detrimental.

Ladies and Gentlemen, coming to the end: I wish you success and steady progress for this meeting. May fruitful discussions help to pave the way to a solar hydrogen economy in a hopefully not too distant future.

Thank you very much for your attention.